Energy Collaborative Analysis Workshop

Industry Census Application

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Why Conduct a Clean Energy Census?

- **Premise**

  - ✓ A global priority, creating growth opportunities

  - ✓ Massachusetts has established companies

  - ✓ Need baseline data for policy decisions

- **Basic Questions**

  - ✓ How large?

  - ✓ How fast growing?

  - ✓ What are the perceived factors effecting growth?

- **Support Program Design Efforts**

  - ✓ An accurate company database

  - ✓ Identify barriers to growth

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Methodology

- ## Goals
  - ✓ High participation rate
  - ✓ Accuracy, not estimates

- ## Process
  - ✓ Relatively small universe, $n < 700$
  - ✓ Combine and clean ten databases companies
  - ✓ Conduct online survey
  - ✓ Call targeted individuals to increase participation
  - ✓ Estimate clean energy jobs, where needed, on case-by-case basis

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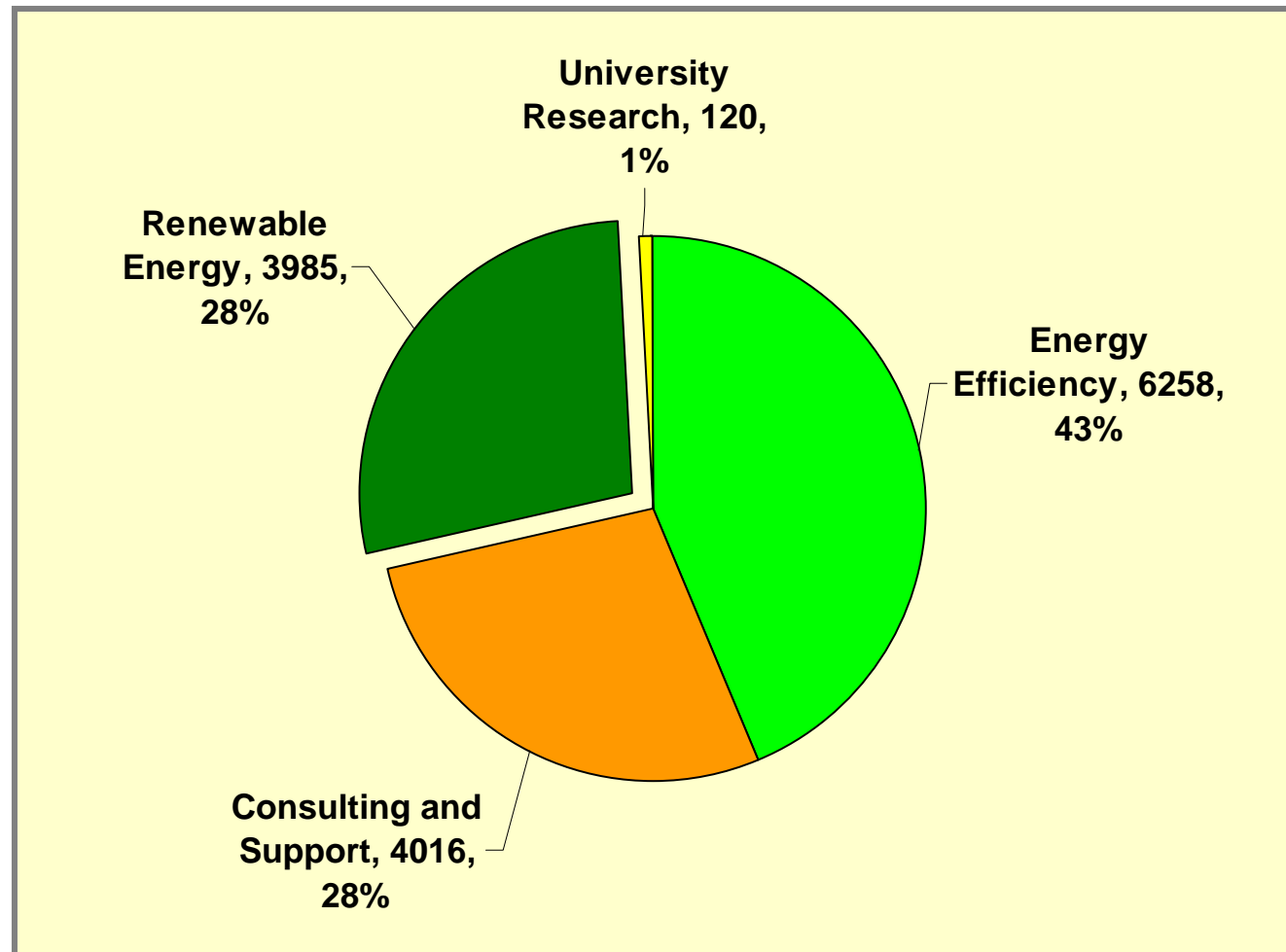
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Clean Energy Census Critical Outputs

- **How large?**

- **How much is it growing?**

- **What are the key characteristics?**

- **Market focus?**

- **Who are the competitors?**

- **How does it compare?**

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14,400 Clean Energy Jobs

University Research, 120, 1%

Renewable Energy, 3985, 28%

Energy Efficiency, 6258, 43%

Consulting and Support, 4016, 28%

Total = 556 Companies, Organizations and University Centers

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556 Companies with 54% Participation

556 Clean Energy companies identified in MA

University Research, 13, 2%

Energy Efficiency, 152, 27%

Renewable Energy, 209, 38%

Consulting and Support, 182, 33%

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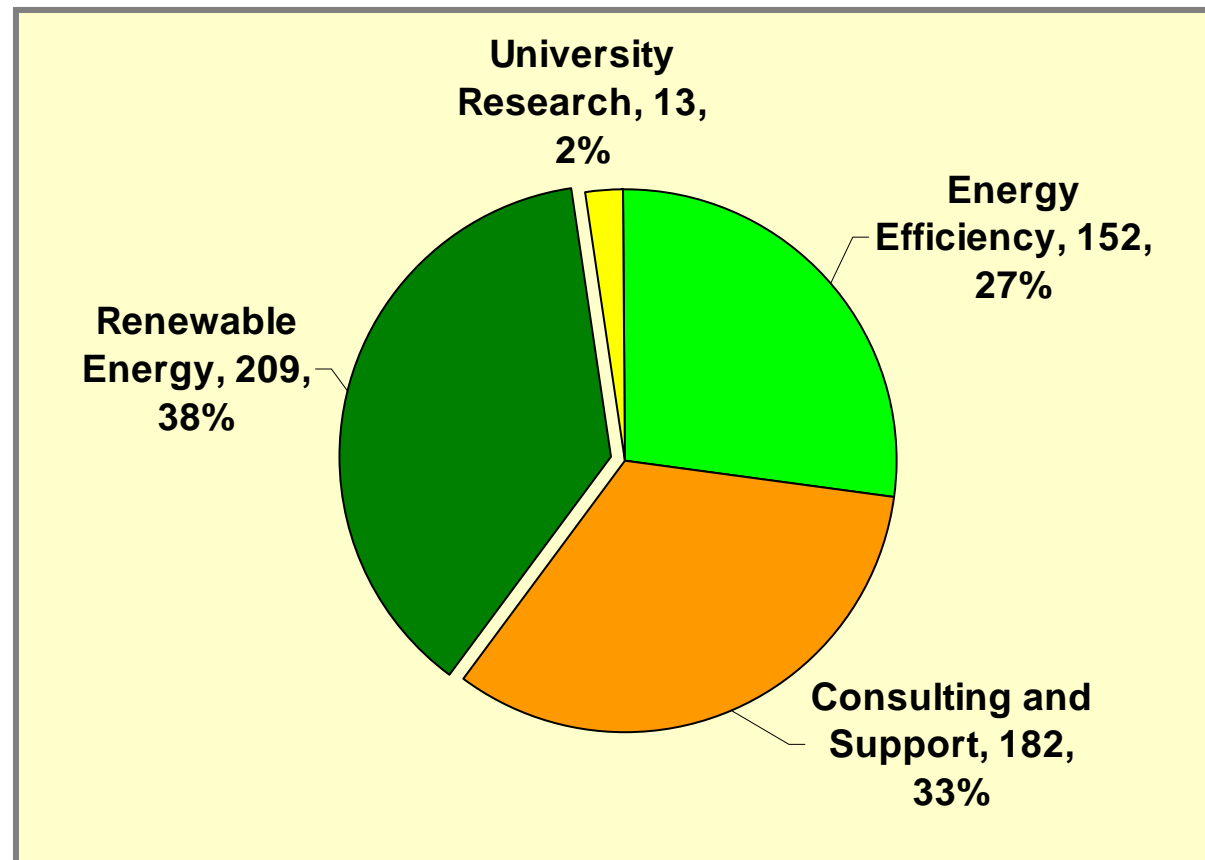
Most are Small Companies

50% of firms have less than 5 employees
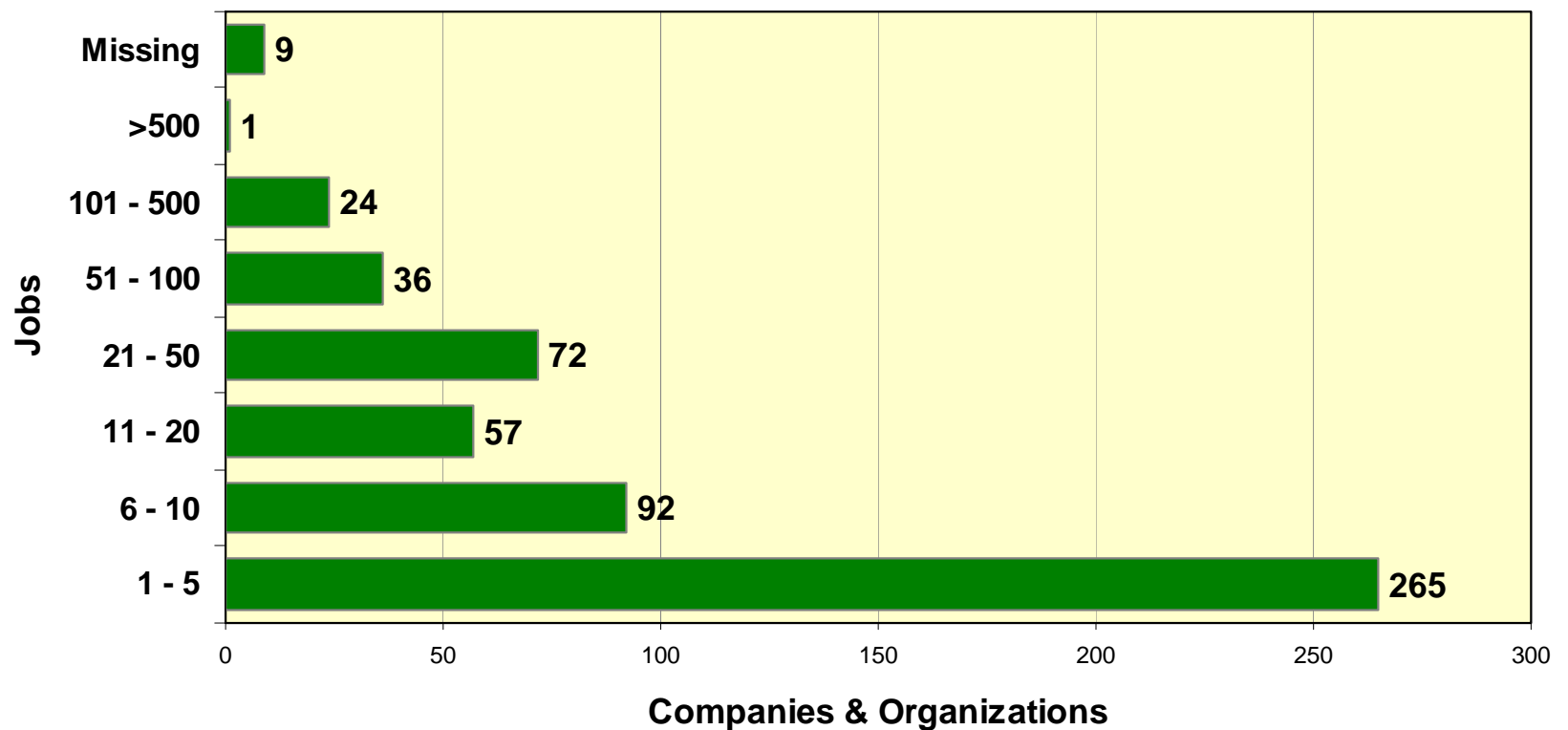
Horizontal bar chart. Y-axis label: Jobs. X-axis label: Companies & Organizations (0 to 300).

Jobs	Companies & Organizations
Missing	9
>500	1
101 - 500	24
51 - 100	36
21 - 50	72
11 - 20	57
6 - 10	92
1 - 5	265

Total = 556 Companies, Organizations and University Centers
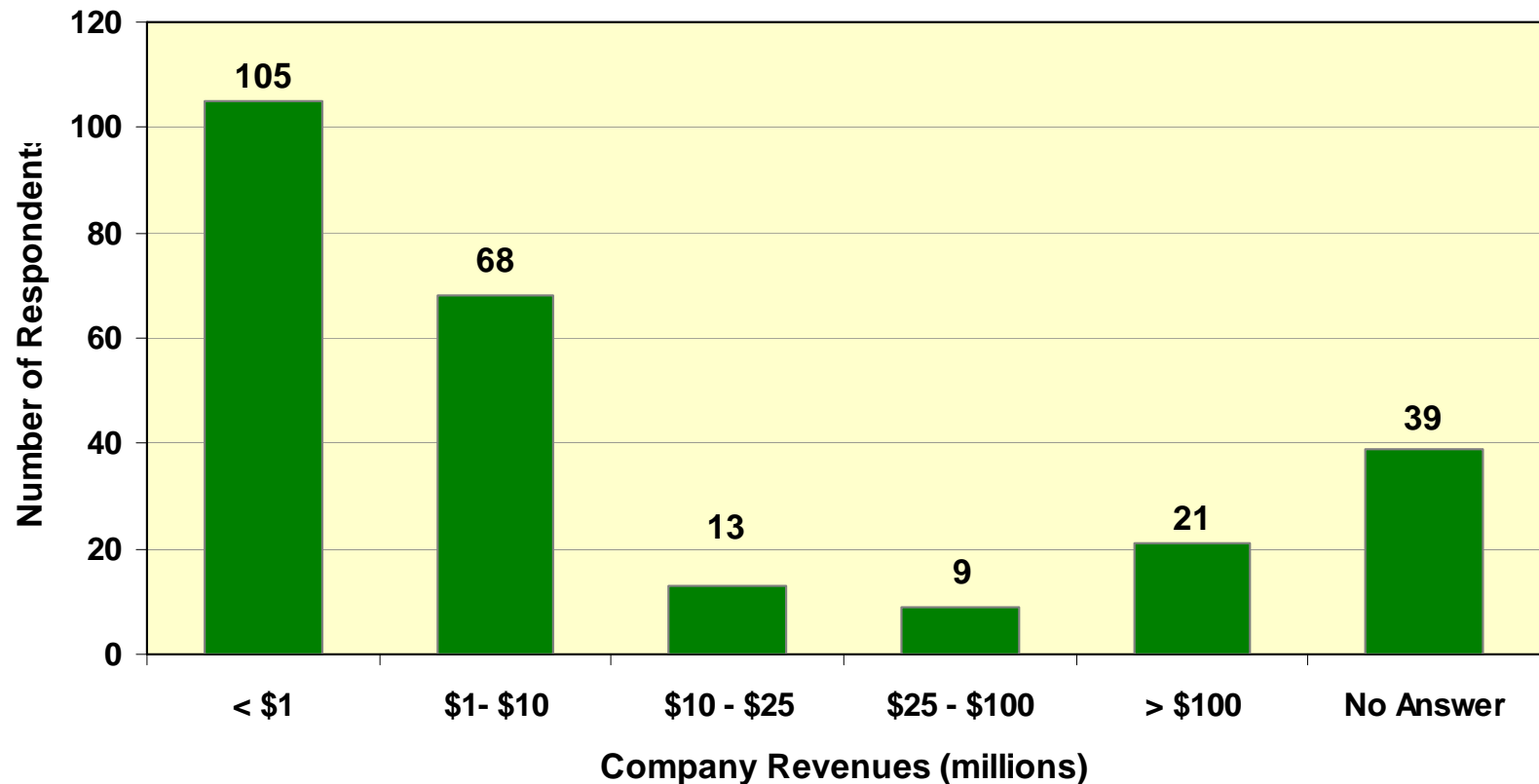
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Most are Small Companies

68% of firms are under $10M in revenues and 50% of firms have less than 5 employees

Bar chart — Number of Respondents by Company Revenues (millions):
- < $1: 105
- $1 - $10: 68
- $10 - $25: 13
- $25 - $100: 9
- > $100: 21
- No Answer: 39

X-axis: Company Revenues (millions)
Y-axis: Number of Respondents

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Catching the Market Wave

Clean Energy startups are booming

Total = 556 Companies, Organizations and University Centers

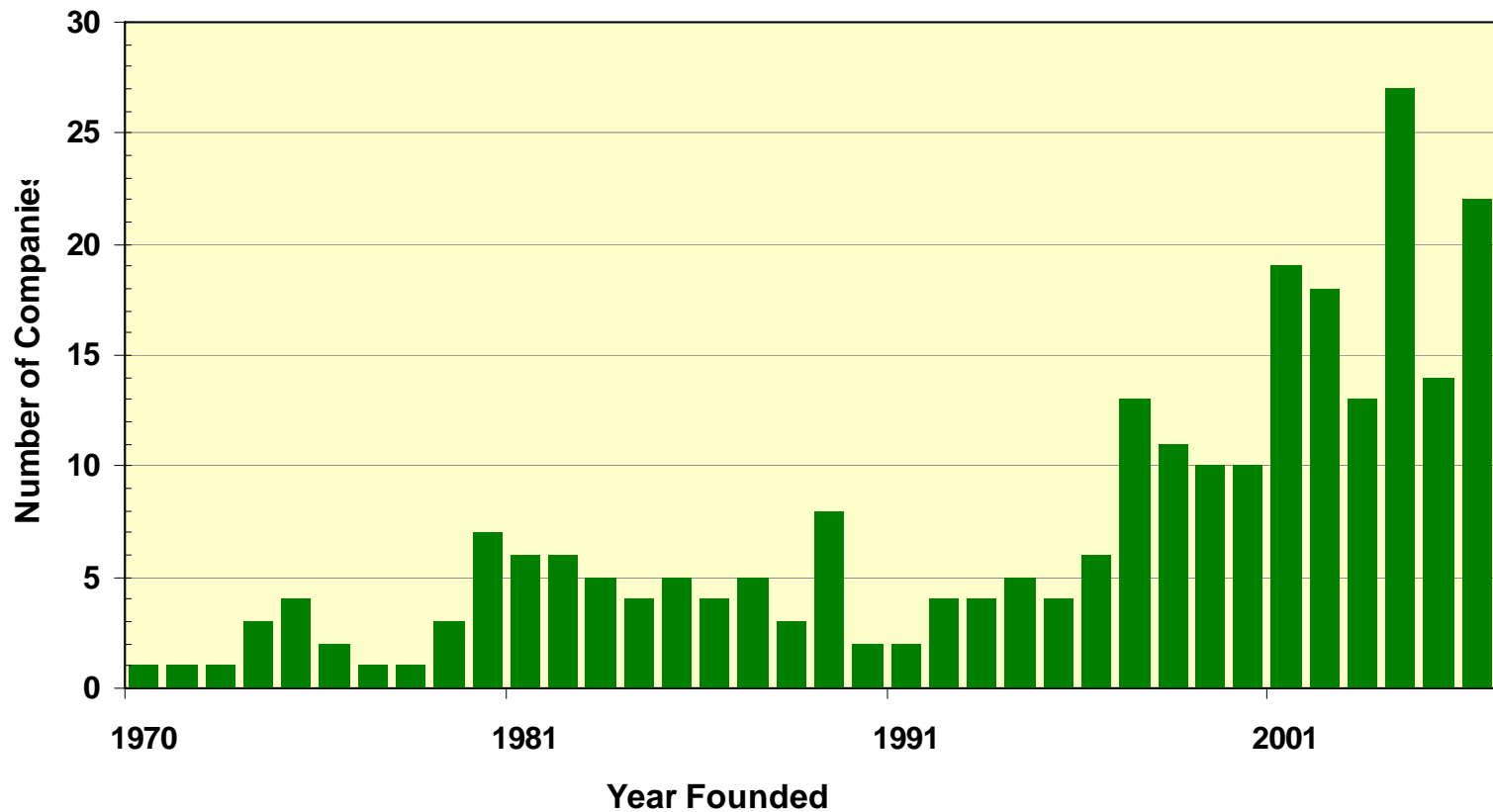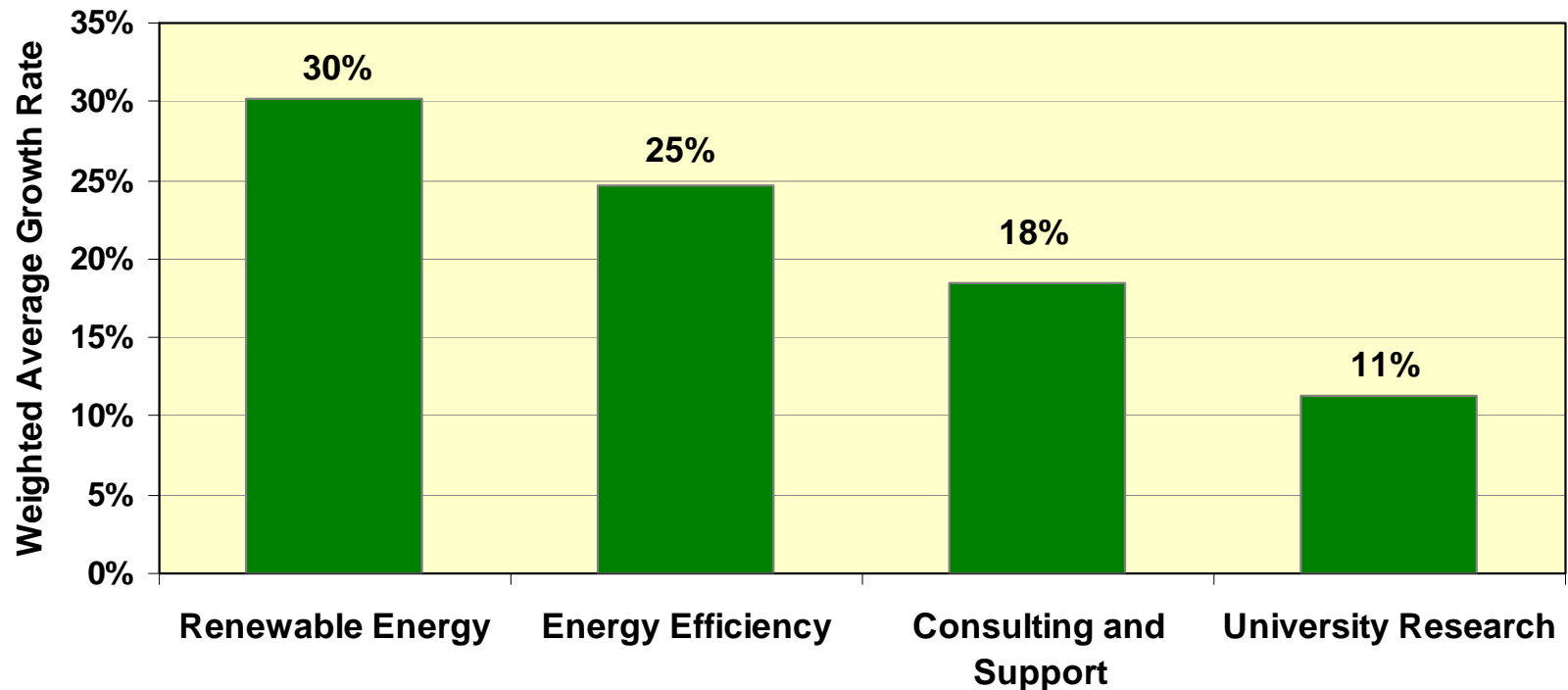MASSACHUSETTS TECHNOLOGY COLLABORATIVE

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Small Firms = High Growth Rates

High employee growth expected

Bar chart titled "Weighted Average Growth Rate" (y-axis) showing:
- Renewable Energy: 30%
- Energy Efficiency: 25%
- Consulting and Support: 18%
- University Research: 11%

Growth rates reported by 302 participants based on FY2006

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Local Market Focus

Most revenues are from local customers in Massachusetts and Northeast

Region	Dollars (Millions)
Massachusetts	69
USA	31
New England	18
Northeast	15
California	14
Midwest	5
China	4
Europe	3
Maine	3
Washington D.C - Fed Gov	3

Dollars (Millions)

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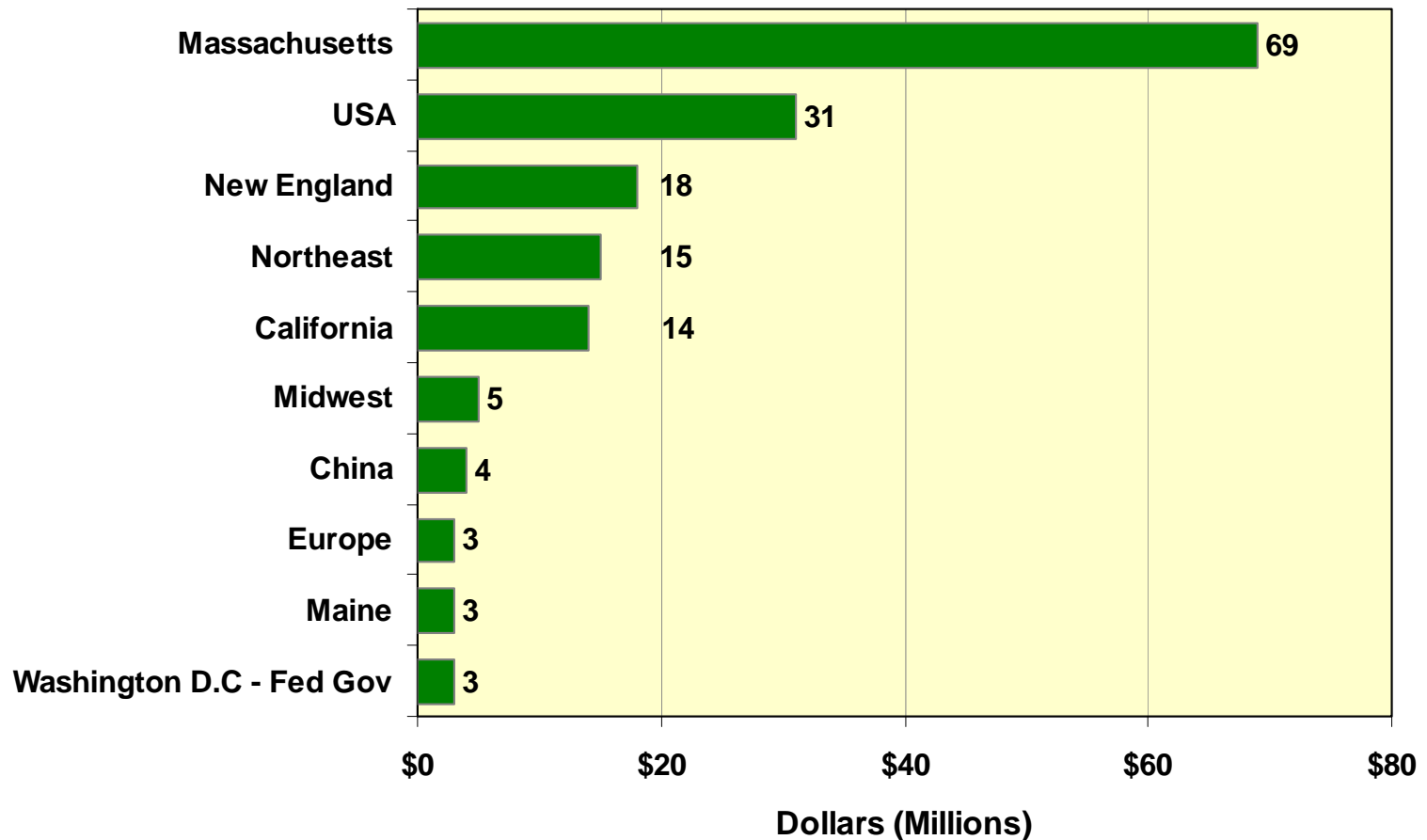
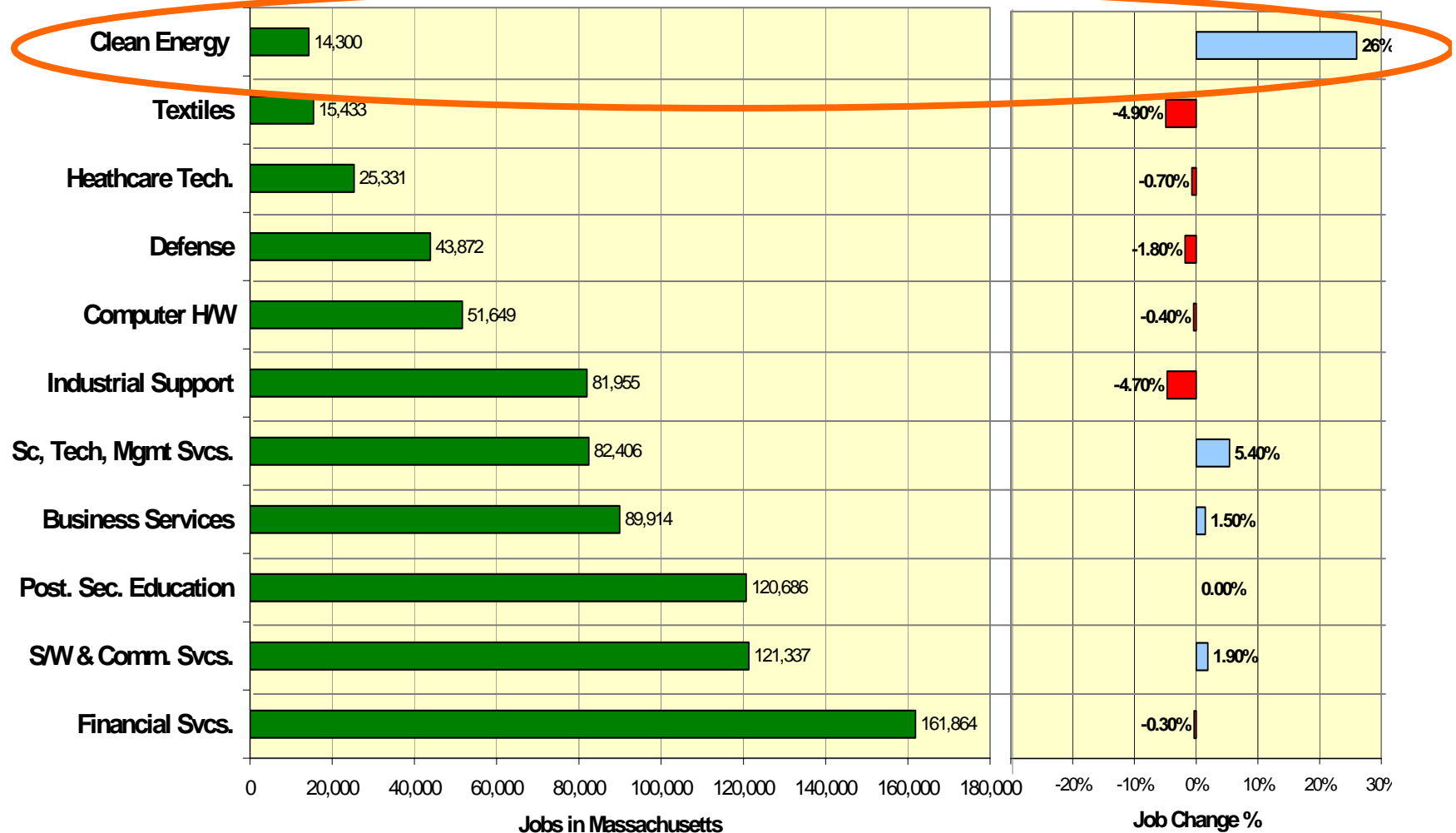# California is our top competitor

California is viewed as the most supportive of building a Clean Energy Cluster

Horizontal bar chart — Number of Respondents:

- California: 59
- Massachusetts: 30
- Germany: 16
- Europe: 13
- USA: 9
- New York: 8
- Japan: 7
- New England: 6
- Texas: 4
- Ohio: 4

Number of Respondents

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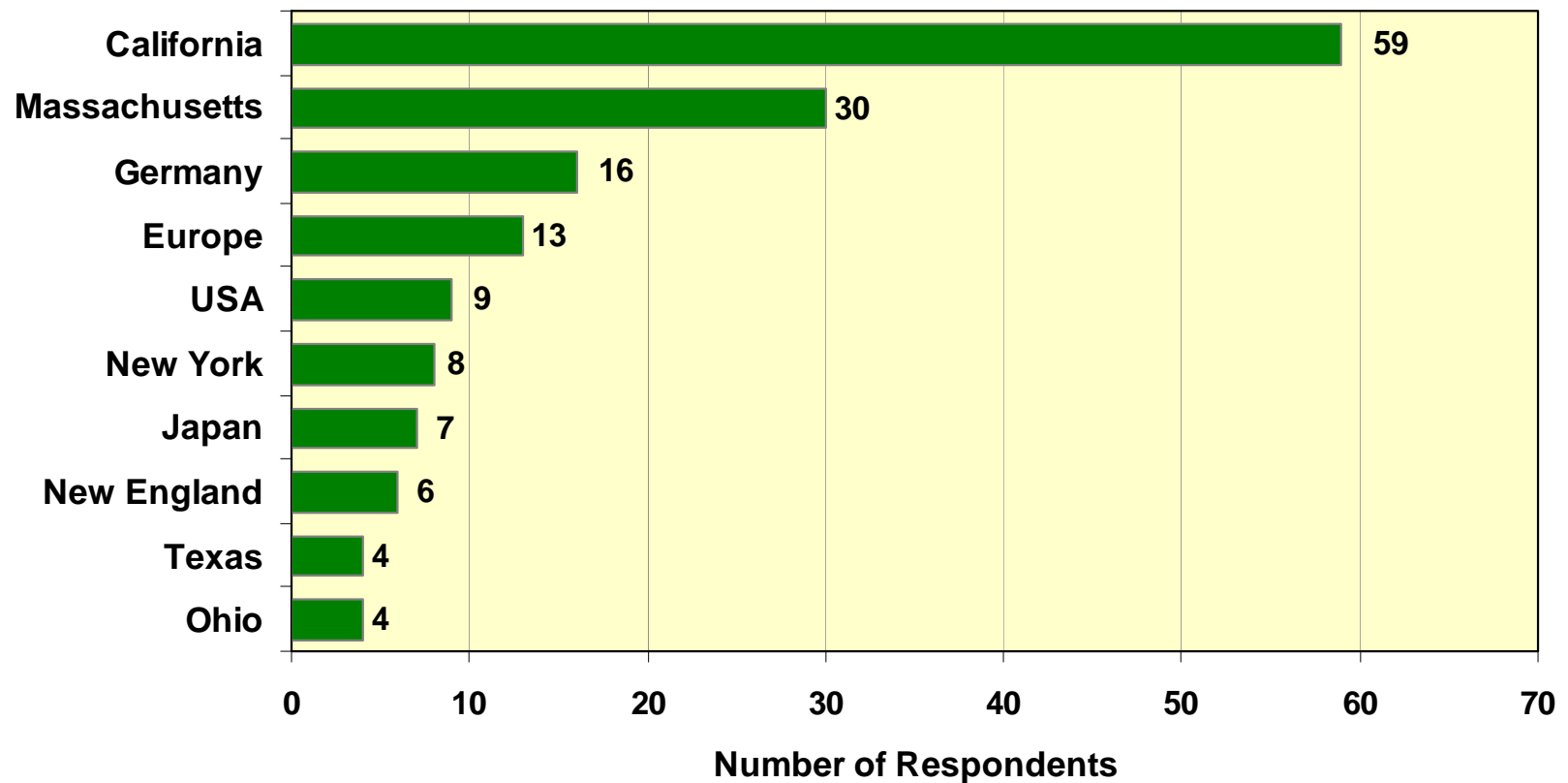
In 2007, Clean Energy will be in the Top 10

Clean Energy — 14,300 — 26%
Textiles — 15,433 — -4.90%
Heathcare Tech. — 25,331 — -0.70%
Defense — 43,872 — -1.80%
Computer H/W — 51,649 — -0.40%
Industrial Support — 81,955 — -4.70%
Sc, Tech, Mgmt Svcs. — 82,406 — 5.40%
Business Services — 89,914 — 1.50%
Post. Sec. Education — 120,686 — 0.00%
S/W & Comm. Svcs. — 121,337 — 1.90%
Financial Svcs. — 161,864 — -0.30%

Jobs in Massachusetts | Job Change %

Sources: John Adams Innovation Institute 2006 Index; Clean Energy Census 2007

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Defining a Great Opportunity

- **Census is a snapshot**

- **Good definition of the Job Base**

- **Defined high growth, as reported by CEOs**

- **We found an incubator, rather than a cluster**

- **Able to define markets for state companies**

- **Census was appropriate for our goals of definition, creating awareness and laying foundations for policy development.**

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